Instruction/ Example

2019 DOE Vehicle Technologies Office Annual Merit Review Oral Presentation: Technology Integration

(replace with your title)

P. I. Name (always include)

Presenter Name (if not the P.I.)

Organization

Date

Project ID #
(this will be provided to you)

Title Slide Examples

Initiative for Resiliency in Energy through Vehicles (iREV)

Principal Investigator: Cassie Powers, Program Manager
Presenter: Cassie Powers, Program Manager
National Association of State Energy Officials (NASEO)
June 9, 2016
Project ID: TI069

This presentation does not contain any proprietary, confidential, or otherwise restricted information.
**All data contained in this presentation is current as of April 2016, unless otherwise noted.*

Southeast Alternative Fuels Demonstration Initiative (SADI)

Andrea Eilers
Triangle J Council of Governments- Triangle Clean Cities
June 8th, 2017

This presentation does not contain any proprietary, confidential, or otherwise restricted information

TRIANGLE J COUNCIL OF GOVERNMENTS

Project ID: TI073

Instruction

Mandatory Overview Slide

- Please prepare an Overview slide formatted and containing the information per the following slide:
  - Timeline (please confirm dates with your DOE HQ/NETL manager)
  - Budget (please confirm values with your DOE HQ/NETL manager)
  - Barriers (please list up to 3 technology integration barriers and targets that this project will address
  - Partners

Instruction

Overview

Timeline

- Project start date
- Project end date
- Percent complete

Barriers

- Barriers addressed
  - List up to 3 technology integration barriers and targets that will be addressed by this project.

Budget

- Total project funding
  - DOE share
  - Contractor share
- Funding received in FY 2018
- Funding for FY 2019

Partners

- Interactions/collaborations
- Project lead

Overview Slide Examples

Overview

Timeline
- Start: June 15, 2015
- End: October 14, 2017
- ~50 percent complete^

Barriers
- Primary: Lack of Technical Expertise
- Secondary: Consumer Reluctance

Budget*
- Total Funding: $750,000
  - Federal: $600,000
  - Subrecipient Share:$520,293
- Budget Period 1: $315,245
  - Expended: $211.183
- Budget Period 2: $284,755
  - Expended: $83,929

Subrecipient Partners
- Arkansas Energy Office
- Lone Star Clean Fuels Alliance
- Louisiana C
- National Al Consortium
- Regional Pl
- Indian Nati Governmer

^As of April 7, 2017 (based on budget)
*As of September 30, 2016

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Overview

Overall Goal
- Increase EV adoption in the Intermountain West

Timeline
- Start: January 19, 2017
- End: January 18, 2020
- 33% Complete

Budget

Total project funding	$11,168,873
DOE share	$3,532,330 (PacifiCorp)
	$450,000 (INL)
Cost share	$7,186,543
Budget period 1	$559,250
Budget period 2	$1,598,975
Budget period 3	$1,374,105

Any proposed future work is subject to change based on funding levels.

Barriers Addressed
- Limited availability of charging infrastructure along travel corridors and places of work
- Limited options for multi-modal electric transportation at the community level
- Limited understanding of electric transportation solutions and benefits

Partners
- PacifiCorp
- Utah State University
- Utah Clean Cities Coalition
- University of Utah
- Idaho National Laboratory
- Forth Mobility
- Park City
- Salt Lake City
- Breathe Utah

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Instruction

Project Objectives

- Project Objectives count for 20% of your total project score.
- These slide titles should clearly link to your **Project Objectives**.
- Information to include:
  - **Describe the objectives of your project (refer to slide #8) and what you were to achieve in the time period covered by this presentation**, i.e., your work over the past fiscal year (Oct. 1 – Sept. 30).
  - **Describe how your project supports the following VT Office Technology Integration goals:** (only note those that are applicable)
    - **National Security** (fuel diversity, domestic fuel sources, alt-fuels)
    - **Economic Growth** (business opportunities related to advanced vehicle tech)
    - **Affordability for Business and Consumers** (cost savings from increased efficiency, alternative fuels, mobility advancements, smarter driving practices)
    - **Reliability/Resiliency** (infrastructure reliability, diverse/resilient fueling and transportation options)
  - The **impact your project has on addressing the barriers identified in the Overview slide** and other specific targets and milestones.

Project Objectives Example Slides

Project Objectives

Top Objectives

1. Expose fleets to AFV operations with lower upfront costs in short term projects.
2. Increase AFV use with fleets who utilize long-term leases for traditionally-fueled vehicles.
3. Increase AFV penetration in three geographic areas.
4. Conduct 60-80 demonstrations.

Supports VTO Technology Integration Goals

- National Security
- Economic Growth
- Affordability for Business and Consumers

Specific Barriers Addressed

- Consumer reluctance to purchase new technologies
- Lack of technical experience with new fuels and vehicle technologies
- Maintenance of local coalition effectiveness

The Why – What Were the Reasons for Penske's Involvement?

- Despite major advances in AFVs, adoption of this technology remains challenging, especially for first-time fleets.
- Penske has seen first-hand the challenges faced by some customers to incorporate AFVs in everyday operations.
- **Most operators are unwilling to buy a vehicle to evaluate fitness for operation in their f commitm**
- This prog before bu risk and c since the as a com

PENSKE

This material is based upon work supported by the Department of Energy, Of Efficiency and Renewable Energy (EERE), under Award Number DE EE000

Project Objectives

Objective

- Reduce US dependence on foreign oil, increase fuel diversity through the use of alternative fuels, and increase transportation efficiency

Supported TI Goals

- National Security – increase alternative fuel use
- Economic Growth – training workforce for new technology
- Reliability/Resiliency – trained workforce reduces vehicle down-time

IMPACT

- Increase the number of professionals trained on AFVs
- Offer regular training on AFVs to ensure adequate support
- Improve technical knowledge to increase consumer confidence

Clean Cities
U.S. Department of Energy

Instruction

Project Approach

- Project Approach counts for 20% of your total project score.
- The title of your slides should make it clear that they count toward **Project Approach**.
- Describe overall Approach for achieving the **objectives** of reducing reliance on imported oil , increasing fuel diversity through the use of alternative fuels, or increasing transportation efficiency. Be sure to indicate if this project will collect/share objective data & lessons learned that can inform future research needs and provide insights to local communities and stakeholders.
  - Describe the overall approach for your project (phases of work, etc.).
  - **List specific tasks from your Statement of Project Objectives and/or Annual Operating Plan.**
  - Emphasize unique aspects of your work.
  - Describe how your project is linked to other R&D or technology integration projects within the VT Office and/or other federal agencies (if applicable).
  - Use simple statements so that lay-people, not experts in your area, can readily understand the explanation of your approach.
- Include the planned milestones and go/no-go decisions for FY 2019 and FY 2020 and current status toward them, as applicable.

Approach Slide Examples

Project Approach - SOPO

Task 3: Expand Access to Alternative Fuel Technical Training

- Expand access to AFV training across the South Central Clean Cities region using materials previously developed in coordination with DOE and to broaden the knowledge base of vocational/community college instructors and institutions to include the relevant curricula in their regular course offerings

Task 4: Expand Access to First Responder Safety Training

- Establish training for first responders, public safety officials, and critical service providers using existing curricula in order to increase the number of service providers by offering AFV safety classes in cooperation with existing Freeway Incident Management classes

Clean Cities
U.S. Department of Energy

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Project Approach

Task 1: Overall Project Manag and Planning

Task 2: Implement Demonstration Projects

Task 3: Conduct Driver Training

Task 4: Collect Vehicle Usage Data

Task 5: Publicize Successes, Best Practices, & Lessons Learned

Triangle J Council of Governments

Project Approach

Milestones and Go/No Go

Budget Period 1

- Fleet Selection Criteria Finalized.
- Vehicle Provider Subcontracts Completed.
- Fleet Agreements Complete.
- Subawardee Contracts Complete.

Demo Vehicles Delivered to Fleets

Budget Period 2

- Complete Fleet Analyses for 50 General Demonstrations.
- Complete 15 In-Depth Fleet Analyses for 15 larger Demonstrations.
- Generate 12 One Page Profiles.
- Produce 12 Video Success Stories.

Go/No Go

MIDWEST DRIVES

8

PROJECT APPROACH

What is Tiger Teams Technical Assistance?

Proactive:

Filling resource and knowledge gaps based on what fleets are experiencing

Providing expert information that allows projects to get started

Working with industry to address common issues & avoid future incidents

Reactive:

Getting stalled projects back on track

Providing a neutral third party perspective for conflicting information

Investigating incidents to determine root cause

Instruction

Milestones

- Milestones may be presented in a separate slide directly after the Approach section or included as part of the Approach section
- Include milestones and go/no-gos for FY 2019 and FY 2020, as applicable.

Milestones Example Slides

Milestones

BP1 Milestones	Type	Description	
Automaker Advisory Group Established	Technical	An Automaker Advisory Group is established to provide input and inform the multi-state ZEV procurement process and provide connection to dealership networks in the 16 project states.	√
Purchase Inducement Tools Identified	Technical	The appropriate purchase inducement tools (such as access to charging, access to leasing and financing options, and policy incentives) to use are identified	√
Projected Volume of ZEV Purchases and Stakeholder Interest	Go/No Go decision	Use analytical tools and survey responses to develop an assessment of the projected volume of ZEV purchases and stakeholder interest	√

BP2 Milestones	Type	Descrip
Multi-state ZEV Request For Proposal	Technical	Multi-state ZEV procureme solicitation issued
Multi-state ZEV Contract Awarded	Technical	Winning bidders notified a
Outreach/Implementation in ZEV MOU and other states	Technical	Outreach materials and gu

EV Smart Fleets

Milestones

Year 1	Execute Subrecipient Agreements	Go/No-Go
	Provide Training to Existing FIM Instructors	Technical
	Initiate Fire Marshal and Code Official Training	Administrative
	Initiate Instructor Training	Administrative
Year 2	Host Fire Marshal and Code Official Training	Technical
	Host End-User AFV Training	Technical
	Host First Responder Safety Training	Technical
	Complete Instructor Training	Technical
	Develop Future Action Plan	Technical

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Instruction

Project Accomplishments and Progress

- Project Accomplishments and Progress count for 40% of your total project score.
- The title of these slides should make it clear that they address **Project Accomplishments and Progress**.
- Each slide should include a summary "take-away" message, especially those that contain data.
- **Describe the most important accomplishments achieved during this reporting period and their significance** (from the project's last review to date for existing projects, or progress to date for new projects).
- Include relevant data to support your accomplishments.
- Relate the accomplishments to project milestones, barriers, objectives, and technology integration targets!
- Benchmark the progress versus FY 2018 results, if applicable.

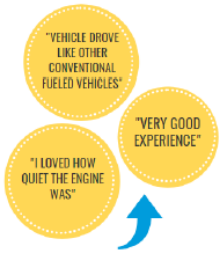
Instruction

Project Accomplishments and Progress (cont.)

- Include no more than one slide on previous accomplishments and CLEARLY indicate work presented at previous AMRs versus new work (n/a if first time project is being presented)!
- To assist the reviewers evaluating your work, please include bullet comments of the key points on each slide.
- Include sufficient slides to explain what was done leading to the accomplishments.
  - However, please limit your slides to the time you have available – the 20-minute presentation time will be STRICTLY enforced!
- Though your presentation will be in color, it is best to choose colors and data symbols that can be easily distinguished in black and white for those reviewers using hardcopies.

Accomplishment Slide Examples

Project Accomplishments & Progress - Surveys and Feedback



DRIVERS ARE SAYING

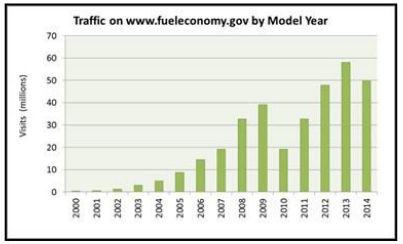
- LOWER EMISSIONS
- DECREASE COST
- INCREASE FUEL SAVINGS

- Approximately 100 surveys completed (to date)
- Opportunity for education and technology partners to respond to questions and feedback
- Able to identify common barriers and misconceptions
- Gain feedback from all drivers, not only decision makers

Triangle J Council of Governments

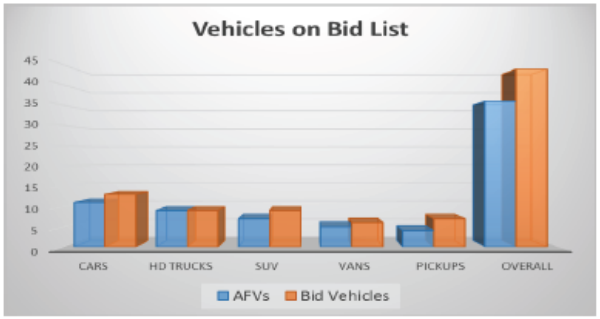
ACCOMPLISHMENTS AND PROGRESS

- **2015 *FEG*: to >33,000 new car dealers, >20,000 public libraries, and >20,000 credit unions; 125,000 copies to GPO for distribution; available on-line at FE.gov.**
- **FE.gov hosted >49.7M user sessions in MY14, second highest ever (MY13 still highest with >58 million). Hosted >350 million users sessions since 1999.**
- **FE.gov cited in >2,500 media articles/blog posts since 2013.**



Project Accomplishments and Progress

Task 2: Kansas City Pilot Procurement: The number of platforms with AFV options versus total number of platforms

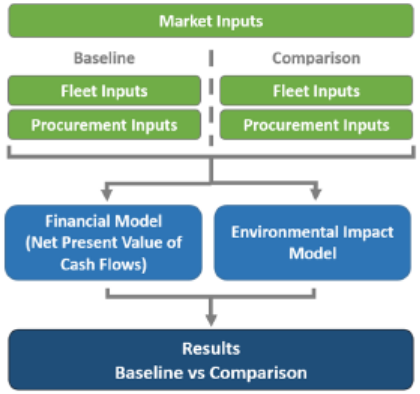


- 35 of the 44 vehicle models include an AFV option
- >6 dealerships provided bids on NGVs, PHEVs, FFVs, and biodiesel vehicles
- 3 dealerships provided bids on LPG vehicles

fleets for the future

Accomplishments
Fleet Procurement Analysis Tool

- Total cost of ownership fleet procurement model
  - ✓Evaluates several procurement structures (lease/own)
  - ✓Side by side comparison
- Outputs include
  - ✓procurement summary,
  - ✓societal benefits summary,
  - ✓sensitivity analysis
- Microsoft Excel-based
  - ✓Easy to use,
  - ✓Flexible (export/import inputs)
- Next steps
  - ✓Address feedback from fleet managers - tool design and user experience
  - ✓Tailor user inputs of tool to solicitation



EV Smart Fleets

Instruction

Collaboration and Coordination Among Project Team

- Collaboration and Coordination with Project Team counts for 10% of your total project score.
- The title of these slides should make it clear that they address **Collaboration and Coordination Among the Project Team**.
- List your project collaborators, indicating:
  - Relationship (i.e., prime, sub, etc.)
  - Industry, university, Federal laboratory, community stakeholder, etc.
  - Within or outside the VT Office
  - Extent of the collaboration.
- Describe the mix of expertise among team members and its impact on your project.
- Describe the contact/interaction/coordination/communication **among project partners.**
- Describe contact/interaction/coordination/communication **with sponsoring VT organization.**

Collaboration Slide Examples

Collaboration & Coordination Among Project Team

Training Partners

Host Facilities

Clean Cities Coalitions

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U.S. Department of Energy

Collaboration and Coordination Among Project Team

- Required close coordination of Clean Fuels Ohio and Clean Cities Coalition Partners. Including:
  - Individual Fleet Contracting
  - Vehicle Scheduling Logistics
  - Data Logger Installation/Management
  - Case Study Generation
  - Sharing Findings and Next Steps with Fleets
- Google Drive, Monthly Group Discussions, and Weekly Communiques allow tracking of fleet and coalition progress.

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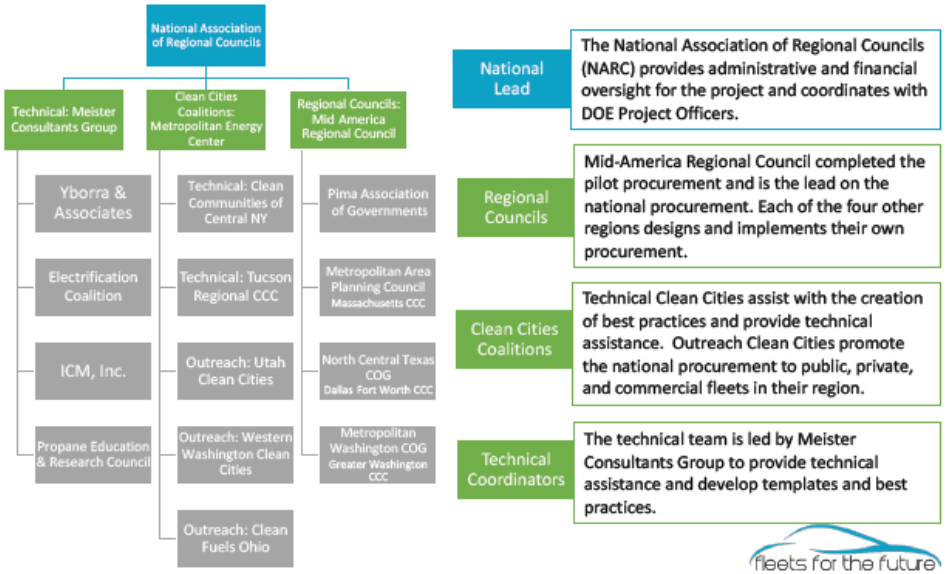
Collaboration and Coordination Among Project Team



Instruction

Overall Impact

- Overall Impact counts for 10% of your total project score.
- The title of these slides should make it clear that they address **Overall Impact.**
- **Highlight how the project has already contributed to the goals and objectives stated earlier, and how it may do so in the future**.
- If applicable, describe how your project will be sustainable beyond the period of performance.
- If applicable, discuss how your project idea could be replicated in other geographic areas or with other technologies.
- Explain what you plan to do during the rest of this year (FY 2019) and next year (FY 2020). Provide justification for future plans.
- Add this statement to all slides with future-looking projections, "Any proposed future work is subject to change based on funding levels."
- Highlight the key remaining challenges and barriers to meeting the project objectives.
- Be as specific as possible; avoid blanket statements.

Overall Impact Example Slides

Overall Impact

- Directly addressing a critical barrier to alternative fuel adoption – **unnecessary costs and restrictions in garage upgrades are often the deciding factor against alternative fuel adoption**
  - Outreach
    - Wide audience: code officials, fire marshals, AHJs, fleets, decision makers, station designers, municipalities
    - Workshop and material information sent to thousands of stakeholders; over 3500 LinkedIn views
  - Disseminating materials
    - Reports, best practices, presentations, and video downloads from website

rkshops/Facility Tours

Workshops completed

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gti

Overall Impact

16

- Achievements in first two quarters:
  - Produced insight into **the wide range of initiatives** that are potentially applicable to the energy efficiency in logistics context
  - Secured the participation of prominent members of the **public and private** sectors and institutions for the **advisory group**
  - Produced an initial **draft of the platform** to integrate modeling tools
- Upcoming:
  - Active involvement of different stakeholders in the evaluation of the initiatives
  - Justification of which initiatives should be pilot-tested based on simulation results from cutting edge simulators
  - Pilot-testing of the most beneficial initiatives

"Any proposed future work is subject to change based on funding levels"

GEORGE MASON UNIVERSITY

Argonne NATIONAL LABORATORY

SUSTAINABLE URBAN FREIGHT SYSTEMS

Instruction

Mandatory Summary Slide

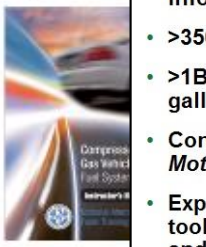
- Summarize the key points you wish the reviewers and the audience to take away from your presentation.

Summary Slide Examples

Summary

Relevance:
- Addressing stakeholder technical needs by providing more frequent, cost-effective training
- Raising awareness of AFVs with target audience, particularly first responders
- Reducing anxiety of performing in-house maintenance

Approach
- Leveraging existing curriculum
- Building on current stakeholder relationships and creating new partnerships with colleges and training centers
- Train-the-Trainer to deliver additional classes beyond the life of the project



Collaborations
- Local governments (fire departments, code officials, fleets, etc.)
- Community/vocational colleges
- Training Centers

Project Accomplishment
- Nearly 20 classes held with over 250 attendees
- Future Action Plan will guide continued w… replicability

Any proposed future work is subject to change based on funding levels.

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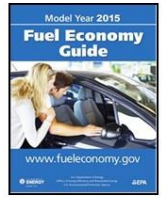
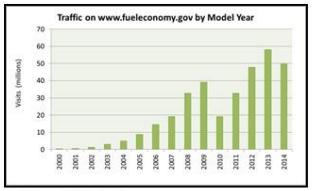
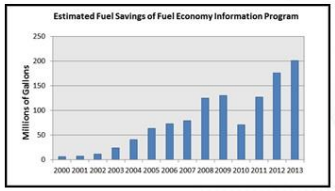
SUMMARY

- **Fulfills DOE's statutory responsibility to provide FE information to the public (49 USC 32908, 2006)**
- **>350M FE.gov users since 1999 (49.7M in MY 2014)**
- **>1B gallons of petroleum reduction since 1999 (168M gallons in MY 2013)**
- **Continue efforts with *FEG*, FE.gov, media outreach, *MotorWeek*, etc.**
- **Expand efforts with FE Tool Kit, PSA campaign, used car tools, "Personalized MPG," new tools for mobile devices, and updated tips for advanced technology vehicles**







21 DOE Annual Merit Review

OAK RIDGE National Laboratory

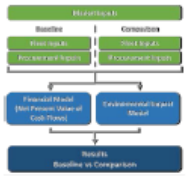
Summary

Goal
- Develop multi-state replicable model for EV procurement by public fleets
- Increase EV adoption by public fleets

Collaborations
- 9 Clean Cities Coalitions – Outreach to 16 states – West Coast Cities led EV RFI – TCI States– ZEV MOU States

Accomplishments/Progress
- ✓ Completed Survey and 1st Outreach
- ✓ Fleet Analytical Procurement Tool (Draft)
- ✓ Developed procurement elements
- ✓ Multi-state sourcing team working on solication

Approach



CALSTART

EV Smart Fleets

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Instruction

Technical Back-Up Slides

(Note: please include a “divider” slide if you are including back-up technical slides [maximum of five]. These back-up technical slides will be available for your presentation and will be included in the web PDF files released to the public.)

Reviewer-Only Slides

- Publications and Presentations
- Critical Assumptions and Issues

(Note: please include a “divider” slide between those to be presented and the “Reviewer-Only” slides. These slides will be removed from the presentation file and the web PDF files.)

Reviewer-Only Slides

- The following slides are to be included in your submission for Peer Evaluation purposes, but will **not** be part of your oral presentation – they will be provided to reviewers only.

Instruction

Publications and Presentations

- List any publications and presentations that have resulted from work on this project.
- Use at least 12-point font.
- Please verify that the links in your slides are active.

Note: This slide is for the use of the Peer Reviewers only; it is not to be presented as part of your oral presentation. These Reviewer-Only slides will be included in the copy of your presentation that will be made available to the Reviewers.

Publications Example Slides

PUBLICATIONS & PRESENTATIONS

All Project Documents

- http://www.transportationandclimate.org/northeast-electric-vehicle-network-documents

Planning, Guidance, and Analysis

- Site Design for Electric Vehicle Charging Stations
  - http://www.sustainabletransportationstrategies.com/wp-content/uploads/2012/09/Site-Design-for-EV-Charging-Stations-1.01.pdf
- Electric Vehicle Supply Equipment Cluster Analysis
  - http://www.transportationandclimate.org/sites/default/files/EVSE_Cluster_Analysis.pdf
- Electric Vehicle Siting and Design Guidelines
  - http://www.transportationandclimate.org/sites/default/files/EV_Siting_and_Design_Guidelines.pdf
- EV-Ready Codes for the Built Environment
  - http://www.transportationandclimate.org/sites/default/files/EV-Ready_Codes_for_the_Built_Environment_0.pdf
- Creating EV-Ready Towns and Cities: A Guide to Planning and Policy Tools
  - http://www.transportationandclimate.org/sites/default/files/EVSE_Planning_and_Policy_Tool_Guide.pdf

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U.S. Department of Energy

Instruction

Critical Assumptions and Issues

- Address 3-5 of the critical assumptions and/or problems affecting the outcome of your project. Briefly describe the problem as well as potential solutions, both within and beyond the scope of the project.
- Exclude funding issues.

Note: This slide is for the use of the Peer Reviewers only; it is not to be presented as part of your oral presentation. These Reviewer-Only slides will be included in the presentation file made available to reviewers.

Critical Assumptions & Issues Slide Examples

Critical Assumptions and Issues (1 of 2)

Critical Assumption/Issue	Proposed Solution
Accuracy of premise that dynamic WPT can complement vehicle electrification technologies to increase overall petroleum displacement and GHG emissions reduction.	Apply cost vs. benefit and consumer preference modeling to propagate individual vehicle comparisons out to aggregate market predictions.
Potentially prohibitive cost of electric roadway infrastructure.	Collect device and installation costs from multiple technology developers. Confirm that costs are within the range of other road construction projects. Based on traffic throughput data and vehicle modeling results, quantify the additiona fee above electricity cost required to pay for the infrastructure over its usable life.

Reviewer Only: Critical Assumptions and Issues

- **Conveyance of accurate Fuel Economy Information to the Public is important (and required by law)**
  - **Misinformation/folklore continue to circulate**
  - **Advanced technology vehicles can contribute to public misperceptions/confusion**

Challenges

- **Volatile energy markets can cause variability in public interest in fuel economy**
- **Consumer reluctance to purchase new technologies**
- **Lack of technical experience with new fuels and vehicle technologies**
- **Consumers lack confidence in official MPG estimates and tend to undervalue the potential savings associated with fuel efficient vehicles**
- **"Conventional wisdom" about fuel economy changes as vehicle technologies evolve**

OAK RIDGE National Laboratory

Critical Assumptions & Issues

Critical Issue	Potential Solution
Technology Partner Participation- It was hard to find partners who had available vehicles and was willing to devote them exclusively to SADI.	We tried to be as flexible as possible with the partners to make the program mutually beneficial. We would also put potential partners in touch with current partners to provide their feedback on the project.
Insurance and Liability Concerns with Demonstrations- Many fleets had concerns with allowing their staff to drive vehicles that were not insured by their organization.	We had the technology partners work directly with the fleets to confirm coverage was provided. If fleet could still not participate, we encouraged a static training or ride along.
Low Petroleum Fuel Prices and Few Incentives Available- With a decrease in petroleum prices and few grants available it has become hard to make the business case for some alternative fuels.	SADI tried to focus on the other benefits of AFVs and hope that in the future there will be more financial incentives available.

Triangle J Council of Governments